Listing of Claims:

1. (Currently Amended) An image signal processing apparatus ~~for processing image signals,~~ comprising:

an image signal acquiring section to acquire ~~said~~ image signals ~~representing~~ which represent an image recorded on a recording medium;

a recognizing section to recognize a presence or absence of a defect pixel possibly included in said image signals; and

a compensating section to compensate for said defect pixel recognized by said recognizing section;

wherein said compensating section compensates for said defect pixel so that first order differential values of image signals of said defect pixel and ~~those~~ first order differential values of image signals of non-defect pixels adjacent to said defect pixel ~~continue to each other~~ are made to be continuous.

2. (Currently Amended) The apparatus of claim 1, wherein said compensating section initially applies a multi-resolution conversion processing to said image signals so as to decompose ~~them~~ said image signals into high frequency band components and a low frequency band component, and then, compensates for signal intensities of said high frequency band components and a signal intensity of said low frequency band component, respectively, and

~~finally~~ then, applies a multi-resolution inverse-conversion processing to compensated high frequency band components and a compensated low frequency band component so as to compensate for said defect pixel included in said image signals.

3. (Currently Amended) The apparatus of claim 2, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.

4. (Original) The apparatus of claim 1, wherein said image signal acquiring section acquires said image signals by scanning said image recorded on said recording medium with an image reading light.

5. (Original) The apparatus of claim 4, further comprising:

a defect-detecting signal acquiring section to acquire defect detecting signals by scanning said image recorded on said recording medium with a defect detecting light;

wherein said recognizing section applies a multi-resolution conversion processing to said defect detecting signals acquired by said defect-detecting signal acquiring section, and then, recognizes said presence or absence of said defect pixel, based on converted signals.

6. (Currently Amended) The apparatus of claim 5, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.

7. (Currently Amended) ~~A~~ An image signal processing method ~~for processing image signals, comprising the steps of~~ comprising:

acquiring ~~said~~ image signals ~~representing~~ which represent an image recorded on a recording medium;

recognizing a presence or absence of a defect pixel possibly included in said image signals;

compensating for said recognized defect pixel ~~recognized by said recognizing section~~;

wherein ~~, in said compensating step,~~ said defect pixel is compensated for [[,]] so that first order differential values of image signals of said defect pixel and ~~those~~ first order differential values of image signals of non-defect pixels adjacent to said defect pixel ~~continue to each other~~ are made to be continuous.

8. (Currently Amended) The method of claim 7, wherein ~~, in said compensating step,~~ a multi-resolution conversion processing is initially applied to said image signals so as to decompose ~~them~~ said image signals into high frequency band components and a low frequency band component, and then, signal intensities of

said high frequency band components and a signal intensity of said low frequency band component are respectively compensated for, and ~~finally~~ then, a multi-resolution inverse-conversion processing is applied to compensated high frequency band components and a compensated low frequency band component so as to compensate for said defect pixel included in said image signals.

9. (Currently Amended) The method of claim 8, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.

10. (Currently Amended) The method of claim 7, wherein ~~, in said acquiring step,~~ said image signals are acquired by scanning said image recorded on said recording medium with an image reading light.

11. (Currently Amended) The method of claim 10, further comprising ~~the step of~~:

acquiring defect detecting signals by scanning said image recorded on said recording medium with a defect detecting light;

wherein ~~, in said recognizing step,~~ a multi-resolution conversion processing is applied to said defect detecting signals ~~acquired by said defect-detecting signal acquiring section~~, and

then, said presence or absence of said defect pixel is recognized, based on converted signals.

12. (Currently Amended) The method of claim 11, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.

13. (Currently Amended) A computer-readable medium having a computer program stored thereon which is executable by a computer ~~for executing operations for processing image signals,~~ to cause the computer to perform functions comprising: ~~the functional steps of:~~

acquiring ~~said~~ image signals ~~representing~~ which represent an image recorded on a recording medium;

recognizing a presence or absence of a defect pixel possibly included in said image signals;

compensating for said defect pixel ~~recognized by said recognizing section~~;

wherein ~~, in said compensating step,~~ said defect pixel is compensated for [[,]] so that first order differential values of image signals of said defect pixel and ~~those~~ first order differential values of image signals of non-defect pixels adjacent to said defect pixel ~~continue to each other~~ are made to be continuous.

14. (Currently Amended) The ~~computer program~~ computer-readable medium of claim 13, wherein ~~, in said compensating step,~~ a multi-resolution conversion processing is initially applied to said image signals so as to decompose ~~them~~ said image signals into high frequency band components and a low frequency band component, and then, signal intensities of said high frequency band components and a signal intensity of said low frequency band component are respectively compensated for, and ~~finally~~ then, a multi-resolution inverse-conversion processing is applied to compensated high frequency band components and a compensated low frequency band component so as to compensate for said defect pixel included in said image signals.

15. (Currently Amended) The ~~computer program~~ computer-readable medium of claim 14, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.

16. (Currently Amended) The ~~computer program~~ computer-readable medium of claim 13, wherein ~~, in said acquiring step,~~ said image signals are acquired by scanning said image recorded on said recording medium with an image reading light.

17. (Currently Amended) The ~~computer program~~ computer-readable medium of claim 16, wherein the computer program causes

the computer to further perform a function comprising: ~~the functional step of:~~

acquiring defect detecting signals by scanning said image recorded on said recording medium with a defect detecting light;

wherein ~~, in said recognizing step,~~ a multi-resolution conversion processing is applied to said defect detecting signals ~~acquired by said defect-detecting signal acquiring section~~, and then, said presence or absence of said defect pixel is recognized, based on converted signals.

18. (Currently Amended) The ~~computer program~~ computer-readable medium of claim 17, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.

19. (Currently Amended) An apparatus for recording an output image onto an outputting medium, said apparatus comprising:

an image signal acquiring section to acquire image signals ~~representing~~ which represent an image recorded on a recording medium;

a recognizing section to recognize a presence or absence of a defect pixel possibly included in said image signals; ~~and~~

a compensating section to compensate for said defect pixel recognized by said recognizing section; and

an image recording section to record said output image onto said outputting medium, based on compensated image signals outputted from said compensating section;

wherein said compensating section compensates for said defect pixel so that first order differential values of image signals of said defect pixel and ~~those~~ first order differential values of image signals of non-defect pixels adjacent to said defect pixel ~~continue to each other~~ are made to be continuous.

20. (Currently Amended) The apparatus of claim 19, wherein said compensating section initially applies a multi-resolution conversion processing to said image signals so as to decompose ~~them~~ said image signals into high frequency band components and a low frequency band component, and then, compensates for signal intensities of said high frequency band components and a signal intensity of said low frequency band component, respectively, and ~~finally~~ then, applies a multi-resolution inverse-conversion processing to compensated high frequency band components and a compensated low frequency band component so as to compensate for said defect pixel included in said image signals.

21. (Currently Amended) The apparatus of claim 20, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.

22. (Original) The apparatus of claim 19, wherein said image signal acquiring section acquires said image signals by scanning said image recorded on said recording medium with an image reading light.

23. (Original) The apparatus of claim 22, further comprising:

a defect-detecting signal acquiring section to acquire defect detecting signals by scanning said image recorded on said recording medium with a defect detecting light;

wherein said recognizing section applies a multi-resolution conversion processing to said defect detecting signals acquired by said defect-detecting signal acquiring section, and then, recognizes said presence or absence of said defect pixel, based on converted signals.

24. (Currently Amended) The apparatus of claim 23, wherein said multi-resolution conversion processing ~~is~~ comprises a Dyadic Wavelet transform.